schilling
Marking Systems GmbH

Megalight ML10 with Laser Protection Cabinet

Operating Instructions

November 2007

k:\bedienungsanltg\lasertechnik\ba-erstellung\laserkabine-ml10_gb.doc

Contents:

INTRODUCTION 3

THE LASER CABINET 4

CONNECTIONS OF THE LASER CABINET 5

LASER PROTECTION CLASS 6

AFTER THE INSTALLATION 7

TROUBLE-SHOOTING 7

Introduction

Dear Customer,

By purchasing a Schilling Marking Systems Mega-Light 10 Laser you have made a good choice, and we thank you for the confidence which you bring to our product.

Your Laser machine will honour your confidence, but from the outset it places one condition; it will always want to be treated with respect, even under the harshest of working environments. Therefore, these Operating Instructions belong in the hands of the qualified service personnel. It would be a shame to leave them to gather dust in archive stores.

We have therefore endeavoured to give you all the references, recommendations and information necessary for the operation, maintenance and monitoring of the Laser machine.

Please read these Instructions carefully before your initial use of the Laser. Becoming familiar with the operation of this product will save you time and prevent losses, and will ensure that you will be fully satisfied with the achievement of your machine in years to come.

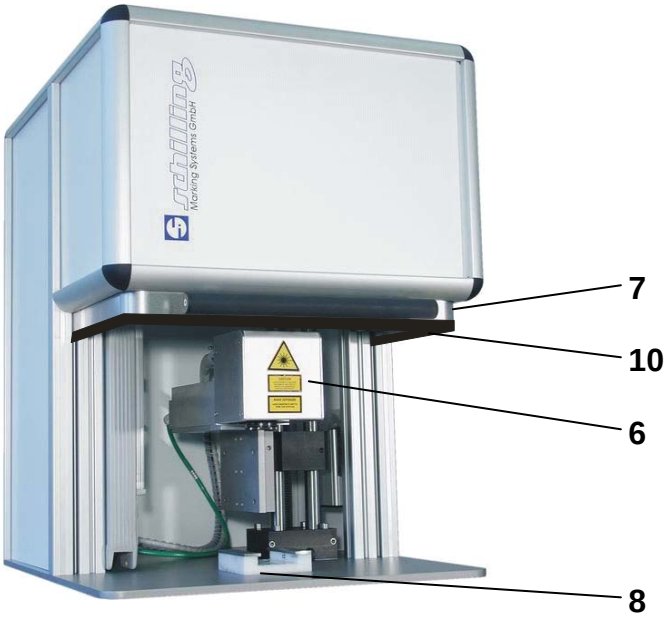
We wish you every success and the best results with your new Schilling Laser.

Thank you for your attention,

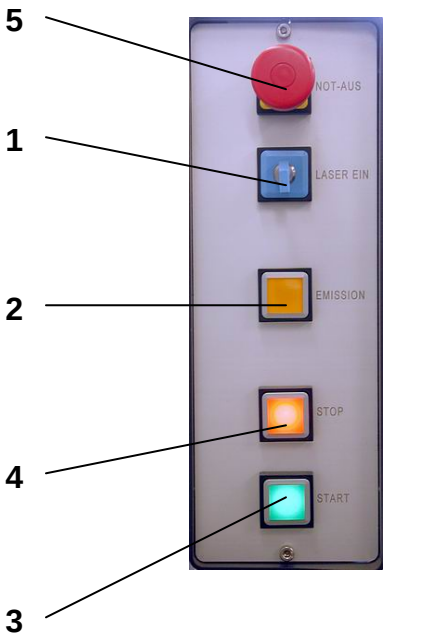
Your Schilling Team.

The Laser Cabinet

Laser Protection Cabinet



Control Panel

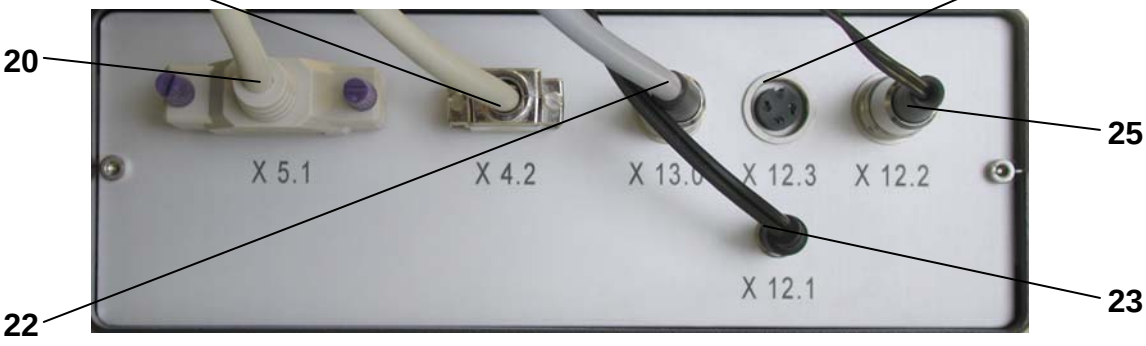


1 Laser „START“
2 Master Switch „SHUTTER“
3 Operation „START“ (when the cabinet is closed, i.e, Safety switch bar)
4 Operation „STOP“
5 „Emergency STOP“

6 Resonator with Galvo-Head
7 Sliding door with Laser Protection Glass
8 Inter-changeable fixture for devices
9 Safety Switch (Auto-start and Shutter)
10 Safety Seal

Laser Cabinet Connections

Control Panel - Rear

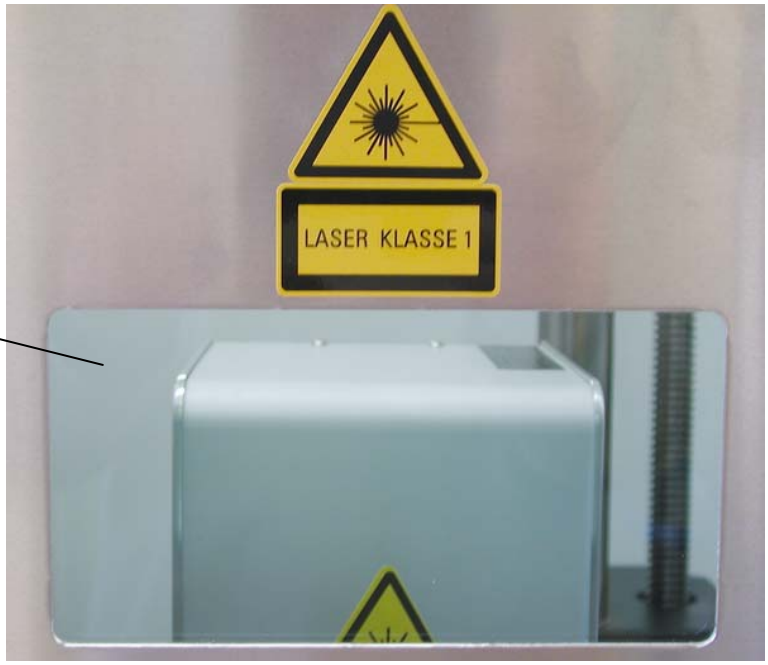


20 25 pol. SUB-D Cable to Rack (X 5.0)
21 9 pol. SUB-D Cable to PC (X 4.0)
22 Cable to Safety switch (9)
23 Power Supply for Control Panel and Z- Axis
24 Power supply output to Switchbox X-Axis (not used)
25 Power supply output to Switchbox Z-Axis (X 3.2)

Switchbox Z-Axis

26 Power supply of the Switchbox Z-Axis from the Control Panel
27 Connection Motor and Reference switch Z-Axis
28 Connection from PC (X 3.0)

Laser Protection Class



Laser-
Protection
Glass

The Cabinet operates in Laser Protection Class 1 .

! ! A T T E N T I O N ! !

The Warranty expires if the following points are not observed.

In principle a Laser Protection Specialist must again confirm the Laser Safety Class after any alterations or modifications in the Cabinet.

- It is prohibited to make any modifications to the Cabinet.
- It is prohibited to dismantle or re-install any part of the Cabinet.
- Should the Laser Protection Glass become damaged or missing, the Laser must not be used under any circumstances. The Glass must be replaced with an intact Laser Protection Glass, Art. Nr. 60.510.
- Should the Sealing Profile (10) become damaged or is missing, the Laser must not be used under any circumstances. It must be replaced with an intact Sealing Profile, Art. Nr. 72.9100.14 (990mm long).
- It is prohibited to manipulate or modify the Safety Switch. The Laser only operates when the Sliding Door is in a closed position, i.e when the Safety Switch (9) is connected.

After Installation

1. Switch ON the power of the Rack. (see Laser Operating Instructions)
2. Ensure the “Emergency Stop” Switch (5) is disengaged.
3. Turn the “Laser Start” Key (1) for a minimum of 0.5sec to the right. This will illuminate the “Start” (4) and “Stop” (3) Switches.
4. Make reference run with the Z-Axis (see Operating Instructions)
5. Activate „Main Switch“ (2)
6. Load the marking data.
7. Adjust the Z-Axis to the correct Focus distance. (see Operating Instructions)
8. Change to the Work-mode.
9. Insert the Workpiece into the device.
10. Switch off the Laser Positioning beam.
11. Close the Sliding Door (7)
12. The „EMISSION“ switch illuminates and glows Yellow
13. After 0.8secs, the inscription procedure begins.

Trouble-Shooting

Problem	Possible Fault	Solution
Marking is too weak	Incorrect Z-Position set up.	Check Z-Position in Job set-up
Marking is too weak	Incorrect Z-Position set up.	Check Z-Position in Axis menu
Marking is too weak	Focus is too high or too low.	Reference run the Z-Axis
Marking is too weak	False Parameters.	Vary the Outputs and Marking speeds.
Marking time is too long	Marking speed is incorrect	Adjust Marking speed
Marking time is too long	Too little Output	Adjust Output
Marking time is too long	Shading too fine	Increase the shading distance
Marking time is too long	Incorrect Font style	Choose correct Fontstyle
No marking	Workpiece cannot be marked	No Marking possibility
No marking	Laser positioning beam not switched off	Switch off Laser Positioning beam
No marking	Sliding door not correctly closed	Check the closing mechanism
No marking	Incorrect marking parameters	Check the correct Marking parameters
No marking	EMISSION Switch not enabled	Enable the EMISSION switch
No marking	Software not in “Work” mode	Install the „Work“ mode and restart the marking